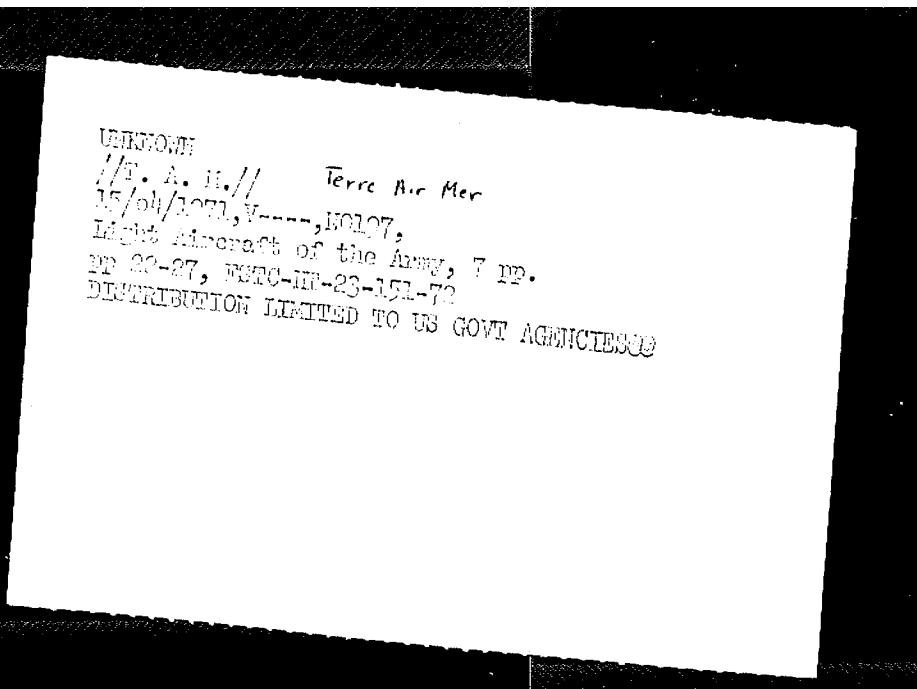


Ground to Air Artillery, by A. Lenoir, 13 pp.
GOVERNMENT USE ONLY
TERRE, AIR, MER, No 196, 16 March 1971, pp 22-28.
ARM/FSTC/HT-23-953-72

April 73



Satory III
TERRE, AIR, MER., No. 204, July 16-31, 1971,
Paris, France, pp 24-27
FSTC-HT-23-1317-72

FRENCH

CSO: 8019/1099
3 December 1973

Class Contradictions in the New Society, by
Roger Garaudy

Paris, Le Testament de Varga, 1970, pp 42-47

Special type B

Do not publish

Translator's draft plus one copy.

COPYRIGHT: 1970 by Editions Bernard Grasset

Constantin, Z. . .
Experimental methodology for the creation of artificial
reefs (Méthodologie expérimentale en vue de la création de
réefs artificiels)
Lethbridge, Alberta, Canada, 1972, 30 p. In French.
Available at: [REDACTED] MIKE, [REDACTED], [REDACTED].

Original Article Checked *[Signature]*

Coustalin, J.-B.
Experimental methodology for the creation of artificial
reefs (Méthodologie expérimentale en vue de la création de
réefs artificiels)
Tethys, 2(4), June: 827-839. In French.

1972

*NTIS-74-55013

Original Article Checked *MR*

Heyns, K.

Catalytic oxidation of primary and secondary hydroxy compounds with oxygen on a platinum catalyst in a liquid phase. Part 14. Catalytic oxidations.

TETRAHEDRON, Vol 9, 1960, pp 67-75

NTC 73-13569-07C

OTTINGER, R.
//TETRAHEDRON//
--/---/1966, V0021, N-----,
*Study of the effect of solvent on NMR. 1. Caffein
and its derivatives,*
pp 3435-3440, NASA TT F 15927##

Burgada, R.

Mechanisms of the Formation and Transformation of
Spirophosphoranes. Part I. Synthesis of Cyclic
Phosphites Having the Structure $\text{O} \sim \text{P}(\text{O})_2 \text{O} \sim \text{O}-\text{A}-\text{O}$
and the Study of their Reactions with Alcohols and
Glycols

TETRAHEDRON, V. 27, 1971, p. 5833-5852
NTC 73-11926-07C

REMBERG, G.

The Content Materials of Filter Papers. Part II.
TETRAHEDRON, vol 27, pp. 5853-5859, 1971.
NTC 73-10445-07C

may 73

Dietz, R.

Quantum chemical investigations of dye aggregates. Part II. Electron spectra of trimethin cyanine polymer models.
TETRAHEDRON, Vol. 28, 1972, p. 1403-1410
NTC 72-11576-07E

Spykerelle, C.

*Identification of series of isoprenoid compounds isolated
from a geological source. Part 1. C₂₁ to C₂₅ acyclic
hydrocarbons (cetarterpanes).*
TETRAHEDRON, Vol 28, 1972, pp 5703-5713
NTC 73-14758-08D

Kessler, R.

Chair-Twist Conformation Equilibrium in cis-1,
2-Ditert-Butylcyclohexane
TETRAHEDRON LETTERS, n. 45, 1968, pp. 4665-4670
NTC 73-12749-07C

Schmidt, U.

Trialkylsulfurio Radicals R₃S and Octet Expansion in
Sulfur Atoms by Attacking Radicals. 'Identity Reactions
TETRAHEDRON LETTERS, N. 42, 1970, p. 3677-3678
NTC 73-11927-07C

Heine, H.-G.

Photochemical α -splitting of ketones in solution.
Part 4. Photolysis of benzoin ethers.
TETRAHEDRON LETTERS, No 47, 1972, pp 4755-4758
NYC 73-14268-07E

On the Rimming Action (1) Solidification of Rimming
Steel Ingot - I, by S. Ishihara.
JAPANESE, per, Tetsu-to-Hagane, Vol 40, 1954,
pp 403-413.
BISI 10781

Jan 73

The Equilibrium Between Carbon and Oxygen in Molten
Iron Saturated with Carbon (1), by S. Matoba.
TETSU-TO-HAGNAE, 1957, Vol 43, No 8, pp 790-6.
BISI 10946

April 73

Unci (ORNL-tr--2699) 26-Aug-73
1/2 Mo, and 9 Cr--1/2 Mo, 7 Cr-
H.; YAMAMOTO, S.; HIURA, T.; KORAYASHI, H.; MASUDA, T.
Translated from Tetsu To Hagane; 46: 372-375(1960).
7p. Dep. NTIS \$3.00.

07A chemical engineering; 11F metallurgy; translations
MN-25 P NSA

Nagano, Y

Treatment of some Melts with Low MN Ultrasonic
Energy - Part 1
Study of Casting Under Ultrasound

TETSU TO HAGANE, Vol 46, No 10, 1960, pp 1209-1211

HB Trans 5217

Koitu, Y. et al

Effect of Refining and Casting Conditions on
Ultrasonic Defect of Heavy Steel Plate.
TETSU-TO-HAGANE, 1967, Sept., Vol. 53, pp.1210-
1212.

#BISI 11550

Kitayama, M.

*Spectrochemical analysis of oxide inclusions in steel by
the solution method.
TETSU TO HAGANE, Vol 54, No 4, 1968, pp 514-519
HB trans 7474*

Shimizu, K. et al.

Effect of Ausforming on the Properties of High
Speed Steels, Pts.I & II.
TETSU TO HAGANE, Vol.54, 1968, No.10, Lecs.195
and 196, pp.S539 and S540.
IIB 8726A

Maekawa, S.

Determination and classification of microscopic
inclusions in forged steel by x-ray diffraction.
TETSU TO HAGANE, Vol 55, No 3, 1969, p 127
HB trans 7974

Shuzo Ito

Transport Phenomena of Supersonic Jet in Oxygen
Top Blowing Converter.
TETSU-TO-HAGANE, 1969, Vol.55, pp.1152-1163.
BISI 11562

Hara, H.

Reduction of iron-ore pellets in hydrogen
at high temperatures.

TETSU TO HAGANE, 1969, pp 1297-1311, v. 55.
HB-8909.

Minowa, S.

Cast iron bars from a horizontal continuous caster.
Parts I, II, III and IV
TETSU TO HAGANE. LECTURE SERIES, v. 55, n. 11,
pp. 5656, 1969, v. 56, n. 4, pp. 563 and n. 11, pp. 5
569, 1970; v. 57, n. 4, pp. 5128, 1971
HB-8414

Ohta, S.

Structural Changes in Stainless Steel Welds during
aging and creep
TETSU TO HAGANE, vol. 56, no. 4, (1970), pp. 223
HB TRANS. 8331

Koshima, K.

Degradation of iron-ore sinters during reduction

TETSU TO HAGANE, Vol 56, 1970, #4,
Lectures 17-18, pp. S17 and S18; and
Vol 57, 1971, #4, Lecture 16, page S16
HB 8971

may 73

Ree, H.

Study of the Reduction of Magnetite Pellets
Containing Anthracite. Part II. X-Ray Study
of Reduction Process of Magnetite Pellets Con-
taining Anthracite.

TETSU-TO-HAGANE, Vol.56, 1970, No.4, Lecs 36,
37, pp.S36, S37
HB 8409

Tate, M.

Study of the Reduction of Magnetite Pellets
Containing Anthracite. Part IV Reduction Reac-
tions of Magnetite "Mixed" Pellets.
TETSU TO HAGANE, Vol.56, 1970, No. 11 Lec.5,
p.S337.

HB 8409

Niina, K.

*Nitrogen in liquid steel. Part A. Effects of tellurium
selenium, sulfur, antimony, and tin on the rate of
nitrogen absorption by liquid iron*
TETSU TO HAGANE. LECTURE SERIES, v. 56, n. 11, 1970,
p 539L
HB-8350

Hasegawa, T. et al

Use of a Combination (Temperature-Measuring
+ Sampling) BOF Sublance.
TETSU TO HAGANE, vol. 56, 1970, No.11, Lec-
tures 68 and 69; pp. S400 and S401.

HB 8416

Gunji, K.

*Nitrogen in liquid steel Part B. Solubility of
nitrogen in liquid multi-element iron alloys containing
carbon, chromium, nickel, vanadium and molybdenum*
TETSU TO HAGANE. LECTURE SERIES, v. 56, n. 11, 1970

pp. S403

HB-8350

Suzuki, A.

Measurements of Conditions of Solidification
in Continuously-Cast Steel Billets.
TETSU TO HAGANE, LECTURE SERIES, Vol. 56,
No. 11, p. S427, 1970
HB-8398

may 73

Saiga, Y. et al

Mechanical Properties of Fe-C-Ni Ultra-High
Strength Steel.

TETSU TO HAGANE, vol. 56, 1970, No. 11 Lec-
ture 122, p. S454.

HB 8962

Sekino, S. et al

Pt.I - Development of a High-Toughness, High-Strength Steel with a Minimum Yield Strength of 90 kg/sq.mm.
TETSU TO HAGANE, Vol.56, 1970, No.11, Lec.123,
12⁴, pp.S455-S456.

HB 8948

Kimura, I. et al

Pt.II - Evaluation of a High-Toughness, High-Strength Steel with a Yield Strength of 90 kg/sq.mm.

TETSU TO HAGANE, Vol.56, 1970, No.11, Lec.]23,

124, pp.S455-S456.

HB 8948

Sekine, T.

Mechanisms of Alumina Clustering in Liquid

Steel.

TETSU TO HAGANE, Vol.57, 1971, No.4.

*HB 8949

Tsutsui, T.

Scaffolding in the Blast Furnace. Part I -
Removal of Scaffolding by Use of Explosives.
TEITSU TO HAGANE, Vol. 57, 1971, No. 4; Lec. 42;
p. 542 ibid.
HB 8928

Sekine, T.

Mechanisms of Alumina Clustering in Liquid
Steel.
TETSU TO HAGANE, Vol.57, 1971, No.4, Lec. 66,
p.S66.
HB 8949

Fujita, T. et al

TRIP Steel in Japan. I - Properties of Basic
and Modified TRIP Steels.
TETSU TO HAGANE, vol. 57, 1971, No.4, Lectures
141 and 142; pp.S141 and S142.
HB 8959

Maki, T. et al

TRIP Steel in Japan. II - Ausaging and the
TRIP Phenomenon.
TETSU TO HAGANE, vol. 57, 1971, No.4, Lectures
141 and 142; pp.S141 and S142.
HB 8959

Matsumura, T.

X-ray fluorescence analysis of pig iron
TETSU TO HAGANE. LECTURE SERIES, v. 57, n. 4, 1977, pp.

S178

HB-8700

Shinoda, T. et al

Part I - Effect of Various Alloying Elements
on the High-Temperature Strength of 16% Cr,
10% Ni Heat-Resisting Steel Containing Vana-
dium.

TETSU TO HAGANE, vol. 57, 1971, No.4, Lectures
209, 210, and 211; pp.S209, S210 and S211.
HB 8950

Shinoda, T. et al

Part II - Effect of Molybdenum, Nitrogen, and
Boron on the High-Temperature Strength of
18% Cr, 10% Ni Heat-Resisting Steel With Low
Titanium and Columbium Contents.

TETSU TO HAGANE, vol. 57, 1971, No.4, Lectures
209, 210, and 211; pp. S209, S210 and S211.
HB 8950

Fujita, T. et al

Part III - Effect of Titanium and Columbium
and Heat Treatment on the High-Temperature
Strength of Austenitic Heat-Resisting Steels.
TETSU TO HAGANE, vol. 57, 1971, No.4, Lectures
209, 210, and 211; pp. S209, S210 and S211.
HB 8950

Kubo Y. et al

Some Properties of Cold Rolling Mill Work Rolls
that have been Hardened by Progressive Double
Frequency Induction.

TETSU TO HAGANE, V.57, 1971, N.5, pp.808-817.

BISI 11747

Tugane, F.

Determination of Trace Amounts of Calcium in
Steels by Atomic Absorption Analysis.
TETSU TO HAGANE, Vol.57, 1971, No.7, pp.1192-
1197.

HB 9039

Ishikawa, H.

Surface defect s on continuously-cast stainless
steel slabs. Part III. On the continuous casting
of stainless steel slabs
TETSU TO HAGANE, LECTURE SERIES, v. 57, n. 11, 1971, p
S457
HB-8216-11

Nakamura, T.

Quench hardening and age softening due to hydrogen
absorption in an Fe-2% Ti alloy
TETSU TO HAGANE. LECTURE SERIES, v. 57, n. 11, 1971,
pp. S580
HB-8719

Maekawa, M. et al

Formation of an Iron Shell on Ore Pellets During Their Reduction.
TETSU TO HAGANE, vol. 57, 1971, No.11, Lecture

2.

HB 9054

Endo, Y.

Atomic Absorption Spectrochemical Analysis
of Iron and Steel.
TETSU TO HAGANE, Vol. 57, p. 2285-2299, 1971
HB-8816

may 73

Mitsushima, S.

Some problems in the production of high-carbon
steel in the basic oxygen furnace.
TETSU TO HAGANE, vol. 57, 1971, #4, Lecture 106,
p. S106
HB 8972

may 73

Imai, Y.

Formation of X-Carbide in Carbon Steel.
Part I and II.
TETSU TO HAGANE. LECTURE SERIES, Vol 57,
No. 4, p. S113 and p. S114, 1971
HB-8465

may 73

Miyamoto, T.

Scanning optical flaw detector for sheet metal
TETSU TO HAGANE, Vol 57, 1971, #4, Lecture
155; page S155
HB 8977

may 73

Kondo, T.

Corrosion fatigue of nuclear reactors. Part I and II.
TETSU TO HAGANE. LECTURE SERIES, Vol 57, No 4,
p. S204 and p. S205, 1971.
HB-8800

may 73

Sakamoto, H.

Fundamental study of wet pelletizing of iron ores.
TETSU TO HAGANE. LECTURE SERIES, Vol 57, No 4, p. S22,
1971
HB-8011

may 73

Nishida, R.

Effect of moisture on the strength of green fellets.
TETSU TO HAGANE. LECTURE SERIES, Vol 57, No 4, p. S23,
1971
HB-j8011

may 73

Yano, S. et al
Toughness of Specially Heat-Treatment 6% Ni
Steel.
TETSU-TO-HAGANE, 1971, Vol. 57, No.4, S.199.
BISI 11256

Blisters Developing During the Heat Treatment of
Steel Plate, by T. Shiraiwa.
TETSU TO HAGANE, Vol 57, 1971, No 4, Lecture 237,
p S237.
HB-8968

April 73

Kotama, K.

Scaffolding in the Blast Furnace. Part II -
Hanging in Blast Furnace and Pressure Measure-
ments.

TETSU TO HAGANE, Vol. 57, Pt. 2, 1971, No. 11;
Lec. 6; p. S348.

HB 8928

A Study of Dip Cooling. Part I - Critical Temperatures
in Dip Cooling. Part II - Nukiyama and Leidenfrost
Points in Liquid-Drop Vaporization. Part III - Rela-
tionahip Between Cooling, Vaporization, and Boiling
Curves, by K. Fukuta and M. Mitsutsuka.
TETSU TO HAGANE, Vol 57, 1971, No 11, Lectures 241,
242, and 243, pp S241, S242, S243.

HB-8827-I

April 73

Hiromoto, T.

Study of nonmetallic inclusions in curved-mold continuously-cast (steel) slabs. Part I thru IV.
TETSU TO HAGANE. LECTURE SERIES, Vol 57,
No 11, p. S453 and p. S454, 1971; Vol 58,
No 4, p. S74 and p. S75, 1972.
HB-8828

may 73

Kusunoki, K.

Electronic Boronizing of Steel. Pts I and II.
TETSU TO HAGANE. Lecture Series, V.57, N.11,
pp. S614-S615, 1971.

HB 8707

S. MAEKAWA

On the Trial Manufacture of Sheet Steel for
Practical Use and Its Quality. Part II.
Study of High-Toughness As-Rolled Low Carbon
Steel.
TETSU TO HAGANE, Vol 57, No 11, pp S616, 1971.
BISI-10627

Mar 73

Quality of 18-8 Chrome-Nickel Stainless Steel in
Relation to Continuous-Casting Conditions, by S. Koike.
TETSU TO HAGANE, Vol 57, 1971, No 11, Lecture 302,
p S644.
HB-8980

April 73

Ototani, T.

Deoxidation and Desulfurization of Liquid Iron
(Alloys) with Calcium. Parts I, II, and III.
TETSU TO HAGANE, V.57, N.12, pp.1753-1763.
HB 8055

MURASUITA, Y.
//TENSU TO HAGANE//
--/--/1073, VC057, HD013,
Deoxidation of Liquid Iron with Calcium,
PP 1060-1075, KB 8250-B

Mitaku, T.

Bauxite as a Fluxing Agent in the Basic Oxygen
Steelmaking Process.
TETSU TO HAGANE, Vol.58, 1972, No.4, Lec.85,
p.S87.
HB 8441

Umeda, Y. et al

A New Deoxidizing Technique of Liquid Steel by
Use of Aluminum. Part I - Injection of Aluminum
Bullets into Ladle.

TETSU TO HAGANE, Vol.58, 1972, No.4, Lec. 86,
p.S88.

HB 9172

Internal Cracks in Continuously-Cast Blooms, by B. Eto.
TETSU TO HAGANE, Vol 58, 1972, No 4, Lecture 111, p 111.
HB-8830

April 73

Umeda, Y. et al

Solidification of Steel (Slabs) in a Continuous-Casting Mold.

TETSU TO HAGANE, vol. 58, 1972, No.4, Lec. 112

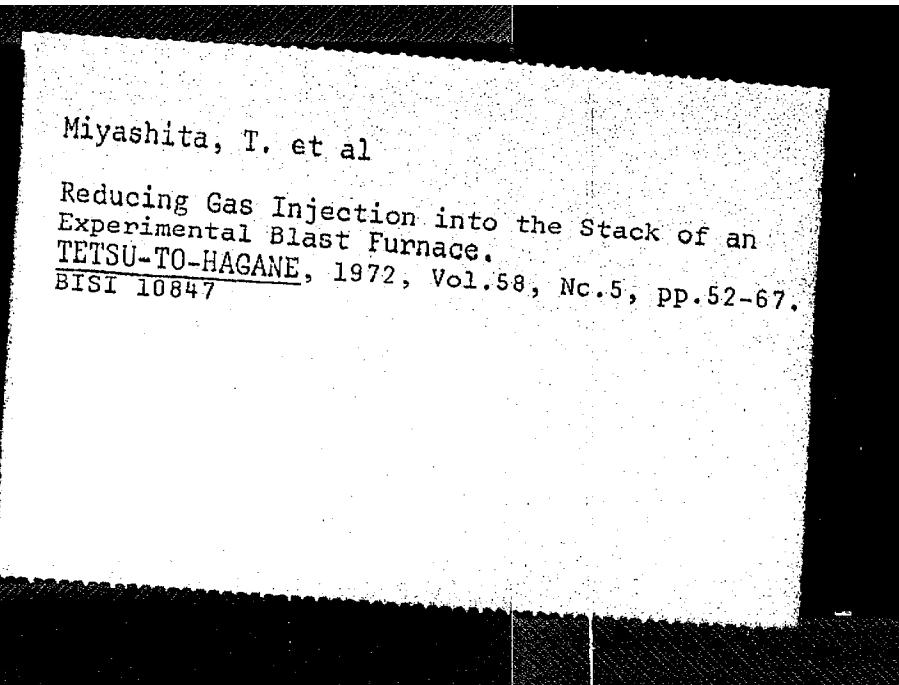
HB 8969

Suzuki, K.

V - Segregation in Steel Ingots. Part II - Effect of Taper on V - Segregation in Steel Ingots.

TETSU TO HAGANE, vol. 58, 1972, No.4, Lecture 119 and 120, pp. S119 and S120.

HB 8966



Ishikawa, H.

A Model Study of Jet Penetration and Slopping
in the L.D. Converter.
TETSU TO HAGANE, 1972, Vol. 58, pp. 76-84
BISI 11300

S. Tsuzuki

End Point Temperature Control in Basic Oxygen
Converters by Sub-Lance.
TETSU-TO-HAGANE, Vol 50, Jan 1972, pp 151-7.

Sept 73

S. Kobayashi

On the Coagulation of Inclusions in Deoxidation
With Silicon-Manganese.

TETSU-TO-HAGANE, Vol 50, No 6, 1972, pp 685-693.
DIST 10032

Scov 73

Reduction of Fine Iron Ores in Gas Conveyed Systems,
by M. Ozawa.
TETSU-TO-HAGANE, 1972, Vol 58, No 7, June, pp 821-
829.
BISI 10789

April 73

Kawai, Y.

Metal-Slag Reactions (Equilibrium and Kinetics)
TETSU-TO-HAGANE, 1972, Vol.58, No.7, June,
pp.932-954.
BISI 10754

T. Nakazawa, et al

On the Composition and Etching Patterns of Minerals
in Sinter.
TEISU-TO-HACARE, ■■■■, No. 56, 1972, pp 1031-8.
BESI 10771

Aug '73

Nakazawa, T.

On the swelling of pellets from sea-water
treated ores, during reduction.
TETSU TO HAGANE, 1972, pp 1039-1043, v. 58.
HB-8839.

Shuzo Ito

Transport Phenomena of Supersonic Jet in Oxygen Top Blowing Converter.
TETSU-TO-HAGANE, 1969, pp.1152-1163.
*BISI 11562

Kawamura, K.

Analysis of iron and steel by x-ray flourescence
using a correction technique
TETSU TO HAGANE, vol. 58, 1972, #9, pp. 1317-1329
HB 8851

may 73

Kuba, M. et al.

Behaviour of Large Inclusions Solidification
of Ingots.
TETSU-TO-HAGANE, 1972, 58, No.10, P.1504.

Mori, I. H.

Causes and Prevention of Defects in Continuous Casting.

TETSU TO HAGANE, Vol. 58, 1972,
No. 10, pp. 1511-1523
HB 9000-I

Mori, H.

Causes and Prevention of Defects in Continuous
Casting. Part II, Concluding.
TETSU TO HAGANE, Vol.58, 1972, No.10, pp.1525-
1534.

HB 9000-II!

Kunii, D.

High-Temperature Fluidized-Bed Reduction of
Pellets Containing Reducing Agents.

TETSU TO HAGANE, Vol.58, 1972, No.11, Lec46,
p.S327.

HB 9155

Ohtani, T.

Gas Holes in Pressure-Cast (Stainless) Steel Slabs.
TETSU TO HAGANE, Vol. 58, 1972, No. 11; Lec. 70;
p. S351.
HB 9111

Kuba, M. et al

Characteristics of Gently Boiling Capped Steel
Ingots.

TETSU TO HAGANE, Vol. 58, 1972, No. 11; Lecture
71; p. S71.

HB 9110

Kato, M. et al

Decomposition Voltages of Steelmaking Slags.
Part I - Measurement of Decomposition Voltage
of Oxide Slags.
TETSU TO HAGANE, Vol. 58, 1972, No. 11; Lec.
105, 106, pp. S389-S390.
HB 9112

Kojima, Y. et al

Decomposition Voltages of Steelmaking Slags.
Part II - Decomposition Voltage of Fluoride-
Based Slags.

TETSU TO HAGANE, Vol. 58, 1972, No. 11; Lec.
105, 106, pp. S389-S390.
HB 9112

Watanabe, S.

On the pinch rolls in continuous casting
TETSU TO HAGANE, vol. 58, 1972, #11, Lectures 113,
114, and 115; pp. S398, S399, S400
HB 8908

may 73

A Study of the Quality of Continuously-Cast [Steel]
Slabs. Part III - Alumina Inclusions in Aluminum-
Killed and in High-Strength Steels. Part IV - Sulfide
Inclusions in Continuously-Cast Slabs, by K. Kawakami,
M. Iehikuro and T. Ishihara.
TETSU TO HAGANE, Vol 58, 1972, No 11, Lectures 117 and
119, pp S402 and S404.
HB-8907

April 73

Takehara, E. et al

Properties of Twin Billets Produced by In-Line
Reduction Subsequent to Continuous Casting.
TETSU TO HAGANE, Vol. 58, 1972, No. 11;
Lec. 141; p. S426.

HB 9136

Taguchi, I.

Application of Electrodeless Discharge Lamp
for Atomic Absorption Spectrophotometry in
the Analysis of Steel and Iron;
TETSU TO HAGANE, vol. 58, 1972, No.11, Lec-
ture 180; p.S465.
HB 8954

Shiraiwa, T.

Automatic Control System for Electron-Probe
Microanalysis.
TETSU TO HAGANE, Vol.58, 1972, No.11, P.S465.
JHB 9070

Nakao, T.

Automatic gas chromatographic analysis
of blast furnace and coke-oven gases.
TETSU TO HAGANE, Vol 58, 1972, #11,
Lecture 181; page S466
HB 8955

may 73

Fukuta, K.

A Study of Dip Cooling. Part V- Effect of
Stirring of Water. Specimen Location in Dip
Cooling.

TETSU TO HAGANE, Vol. 58, 1972, No. 11, Lec.
228, 229; p. S513, S514.
HB 8827-II

Fukuta, K.

A Study of Dip Cooling. Part IV- Heat Transfer Coefficient and Effect of Water Temperature on Dip Cooling.

TETSU TO HAGANE, Vol. 58, 1972, No. 11, Lec.
228, 229; p. S513, S514.

HB 8827-II